Proximal Tibiofibular Joint Dislocation

Proximal tibiofibular joint dislocation is an uncommon injury to a joint at the outer knee where adjoining bones are displaced from their normal position and the joint surfaces no longer touch each other. The joint is actually outside the knee and involves the two bones of the lower leg (tibia and fibula). These bones also make the upper part of the ankle joint. Subluxation of this joint is also uncommon; this is when the joint surfaces still touch but are not in normal relationship to each other. This injury may occur with a fracture of one or both of the leg bones.

Injury occurs when the head of fibula is separated from the tibia and the tibiofibular ligaments (green arrow) are torn.
Frequent Signs and Symptoms

- Pain in the outer knee and occasionally in the ankle
- Pain that may be severe with standing on or moving the affected leg or knee; may just be an ache
- Giving way or buckling
- Locking or catching of the knee
- Often an obvious bump on the outer side of the knee, with tenderness, mild swelling over the outer knee, and bruising at the injury site
- Occasionally, increased pain at the knee with ankle motion (moving it up and down)
- Numbness or paralysis below the dislocation from stretching injury to the nerves (uncommon)

Etiology (Causes)

There are many causes of this uncommon injury. They include direct blow to a bent knee, twisting injury, ankle fracture-dislocation, infection, growth disturbance, and other non-sports-related causes, including congenital problems (you are born with it). One of the most common causes is falling in the “hurdler’s” position. It may occur without injury in people with loose joints.

Risk Factors

- Sports in which one may fall in a hurdler’s position (sliding in baseball, sliding tackle in football); also, wrestling, football, jet ski racing, skiing, gymnastics, broad jumping, basketball, parachute jumping, horseback riding, rugby, and judo
- Congenitally loose ligaments (“double jointed”)
- Direct trauma, such as with horseback riding

Prevention

Use proper technique when falling and landing, as well as proper technique for sliding in baseball and slide tackles in football. Avoid playing sports on irregular surfaces.

Outcomes

With appropriate reduction (repositioning of the joint), athletes can return to activities when they have no symptoms, usually within one to two weeks.
Potential Complications
• Damage to nearby nerves due to stretching with the dislocation (the nerve wraps around the fibula and may be stretched with the dislocation)
• Associated fracture or joint cartilage injury due to the dislocation or reduction of the dislocation
• Prolonged healing or recurrent dislocation if activity is resumed too soon
• Recurrent dislocations
• Arthritic joint following repeated injury or delayed treatment
• Ankle pain

Treatment Considerations
After immediate reduction (repositioning of the bones of the joint) by trained medical personnel, treatment consists of ice and medications to relieve pain. Although reduction can be performed without surgery, surgery is occasionally necessary to restore the joint to its normal position if this is not possible without surgery. Elevating the injured foot and ankle at or above heart level helps in reducing swelling. Immobilization by splinting, casting, or bracing for two to eight weeks may be recommended to protect the joint while the ligaments heal. Other options include therapy to strengthen the hamstring muscles and surgery to fix the torn ligaments or hold the joint in place. After immobilization or surgery, strengthening and stretching of the injured and weakened joint and surrounding muscles (due to immobilization and the injury) are necessary. These may be done with or without the assistance of a physical therapist or athletic trainer. Surgery is usually only needed if the dislocation cannot be reduced or if there are recurrent dislocations.

Possible Medications
• General anesthesia or muscle relaxants may be used to help make the joint repositioning possible
• Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within seven days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
• Strong pain relievers may be prescribed as necessary. Use only as directed and only as much as you need.
Modalities (Heat and Cold)

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning/freezing your skin.

- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

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